Intel® RAID Smart Battery AXXRSBBU3

Installation Guide

Order Number: C95291-005

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Important Safety Instructions

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Read all caution and safety statements in this document before performing any of the instructions. See *Intel Server Boards and Server Chassis Safety Information* at http://support.intel.com/support/motherboards/server/sb/cs-010770.htm.

Wichtige Sicherheitshinweise

Lesen Sie zunächst sämtliche Warn- und Sicherheitshinweise in diesem Dokument, bevor Sie eine der Anweisungen ausführen. Beachten Sie hierzu auch die Sicherheitshinweise zu Intel-Serverplatinen und -Servergehäusen unter http://support.intel.com/support/motherboards/server/sb/cs-010770.htm.

重要安全指导

在执行任何指令之前，请阅读本文档中的所有注意事项及安全声明。
和/或http://support.intel.com/support/motherboards/server/sb/cs-010770.htm 上的 *Intel Server Boards and Server Chassis Safety Information*（《Intel 服务器主板与服务器机箱安全信息》）。

Important Safety InstructionsConsignes de sécurité

Lisez attention toutes les consignes de sécurité et les mises en garde indiquées dans ce document avant de suivre toute instruction. Consultez *Intel Server Boards and Server Chassis Safety Information* rendez-vous sur le site http://support.intel.com/support/motherboards/server/sb/cs-010770.htm.

Instrucciones de seguridad importantes

Lea todas las declaraciones de seguridad y precaución de este documento antes de realizar cualquiera de las instrucciones. Vea *Intel Server Boards and Server Chassis Safety Information* en http://support.intel.com/support/motherboards/server/sb/cs-010770.htm.

WARNINGS

Server power on/off: The push-button on/off power switch on the front panel of the server does not turn off the AC power. To remove AC power from the server, you must unplug the AC power cord from either the power supply or wall outlet.

Hazardous conditions—power supply: Hazardous voltage, current, and energy levels are present inside the power supply enclosure. There are no user-serviceable parts inside it; servicing should only be done by technically qualified personnel.

Hazardous conditions—devices and cables: Hazardous electrical conditions may be present on power, telephone, and communication cables. Turn off the server and disconnect telecommunications systems, networks, modems, and the power cord attached to the server before opening it. Otherwise, personal injury or equipment damage can result.

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About the Intel® RAID Smart Battery

Intel® RAID Controllers and Intel® Integrated Server RAID Modules provide reliability, high performance, and fault-tolerant disk subsystem management. A complete fault-tolerant strategy requires protection for all data, including the unwritten cached data in the RAM cache. If power is lost, the data in RAM is lost. To avoid this data loss, a battery can be added to supply power to the RAID RAM during an AC power outage or if the AC power cord is removed.

The Intel® RAID Smart Battery (RSB) is a small battery pack accessory to the Intel® Integrated Server RAID and the SCSI RAID on Motherboard (ROMB) solutions used on particular Intel® Server Platforms. The Smart Battery preserves the contents of the RAID DIMM in the event of a power failure. Once power is restored, all of the preserved data in the RAID Cache DIMM is flushed to the RAID drives. The Smart Battery Circuit ensures that the backup battery is maintained at a full charge for optimal performance when it is activated. When activated, it provides backup power to the RAID DIMM for up to 64 hours.

The Intel RAID Smart Battery is a compact package that contains the following components:

- Battery pack: The NiMH battery pack supplies power to the RAM if AC power is lost. The pack includes a Smart Refresh circuit and charger. The refresh circuit is based on the Texas Instruments* bq2060A SBS v1.1-compliant Gas Gauge IC. Software to monitor and inform the user of RSB activities is included.

- Plastic battery holder: The holder is designed to fit the following Intel® ROMB-based server chassis and platforms:
  - Intel® Entry Server Chassis SC5299-E
  - Intel® Server Chassis SC5400
  - Intel® Server Platform SR1550AL with product code SR1550ALSAS
  - Intel® Server Platform SR2500AL with product code SR2500ALSAS
  - Intel® Server Platform SR4850HW4 with SCSI ROMB, product code SHW4UR/M
  - Intel® Server Platform SR6850HW4 with SCSI ROMB, product code SHW6UR/M
  - Intel® Server Platform SR4850HW4/M with Intel® Integrated Server RAID (SAS), product code SHW4URM3SA
  - Intel® Server Platform SR6850HW4/M with Intel® Integrated Server RAID (SAS), product code SHW6URM3SA

  The battery pack fits inside the plastic clamshell, which in turn slides onto connectors in the server chassis.

- Connecting cables: 20-pin cables of multiple lengths are supplied in the kit to support various server configurations. These cables are connected between the battery pack and a connection point on the Intel® Server System.

Installing the Hardware

Prepare the Server

1. Observe all safety and ESD precautions at the beginning of this guide and in the documentation for your server board and chassis.
2. If your server system is running, power off all peripheral devices attached to the server, power down the server, and disconnect the AC power cord from the server.
3. Remove the chassis cover. See your server chassis documentation for instructions.

Install the Intel® RAID Smart Battery

Connect the Battery Cable

1. The clamshell is designed to be difficult to open to ensure the battery is secured. Observe the location of the closure tabs. See Letters “A” and “B” in Figure 1 .
2. Flex the inner edges of the clamshell to release the closure tabs.
   Caution: *Do not exert excessive force when flexing the edges of the clamshell. Excessive pressure can break the clamshell.*
3. Open the RAID Smart Battery clamshell. See Letter “C” in Figure 1.
4. Attach the connecting cable to the connector at the rear of the clamshell. See letter “D” in the figure. Use the cable appropriate for your server system:
   - Intel® Server Platforms SR1550AL and SR2500AL that include Intel® Integrated Server RAID (SAS): Use the 11-inch cable.
   - Intel® Server Platform SR4850HW4 and SR6850HW4 with SCSI ROMB: Use the 11-inch cable.
   - Intel® Server Platforms SR4850HW4/M and SR6850HW4/M with Intel® Integrated Server RAID (SAS): Use the 27-inch cable.
   - Intel® Server Chassis SC5400 and Intel® Entry Server Chassis SC5299-E: Use the 27-inch cable.
   - Add-in SRCSAS controllers that use the Intel RAID Smart Battery: Use the 20-inch cable.

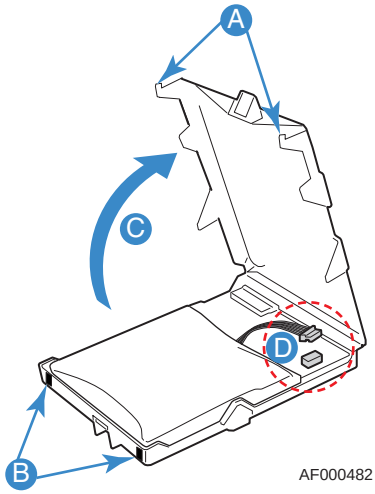

Figure 1. Connecting Battery Cable

Connect the Clamshell to the Chassis

The Intel® RAID Smart Battery SXXRSBBU3 is designed for easy attachment to either an Intel® pedestal or rack chassis. Follow the set of instructions below that is appropriate for your server.

If you are installing this component into a third-party chassis, you will first need to install an attachment mechanism, such as industrial-grade Velcro*. See your server chassis documentation or discuss an appropriate attachment mechanism with your server chassis manufacturer to ensure the attachment mechanism complies with the requirements of the chassis.

Intel® Server Chassis SC5400, Intel® Entry Server Chassis SC5299-E, Intel® Server Platforms SR4850HW4, SR6850HW4, SR4850HW4/M, and SR6850HW4/M

1. Locate the installation clips inside the chassis. They are at the left side of the chassis, near the rear.
2. Align the tabs on the clamshell with the slots on the chassis.

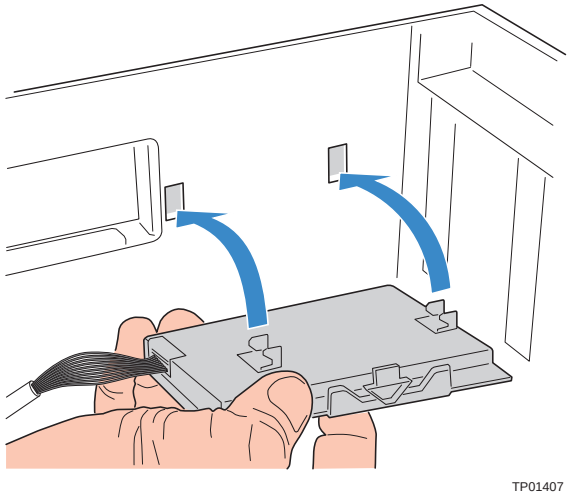

Figure 2. Aligning Tabs to Slots

3. Slide the clamshell toward the front of the system until the tabs engage in the chassis (see Figure 3).

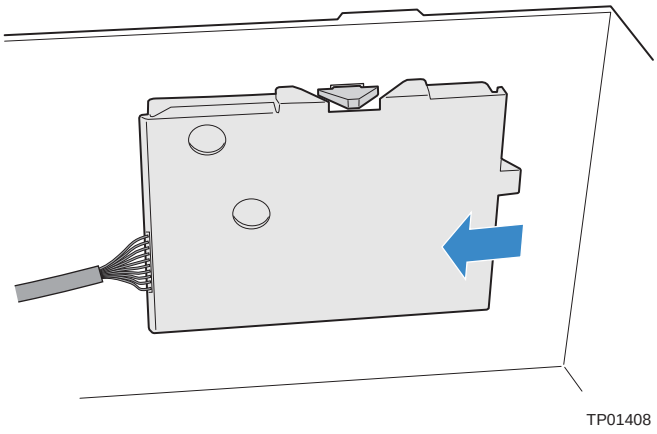

Figure 3. Engaging Tabs in Slots

Intel® Server Platforms SR1550AL and SR2500AL

1. Clips are located on the inside floor of the chassis, at the left side, near the front of the chassis, near the power supply.
2. Align the tabs on the clamshell with the slots on the chassis.
3. Slide the clamshell toward the rear of the system until the tabs engage in the chassis (see Figure 4).

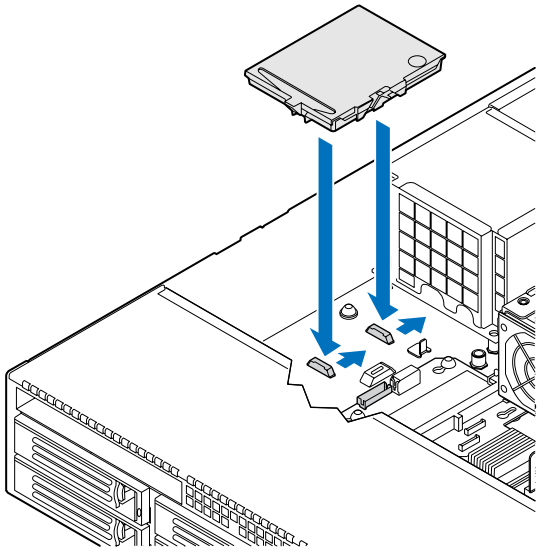

Figure 4. Engaging Tabs in Slots

Attach the Connecting Cable to the Server System

Follow the set of instructions below that is appropriate for your server.

***Note**: The connector will only fit in one position.*

Intel® Server Platforms SR4850HW4 and SR6850HW4 (SCSI ROMB)

1. Route the cable through the cable holder as shown by Letter "A" of Figure 5.
2. Connect the cable to the main board, as shown below.

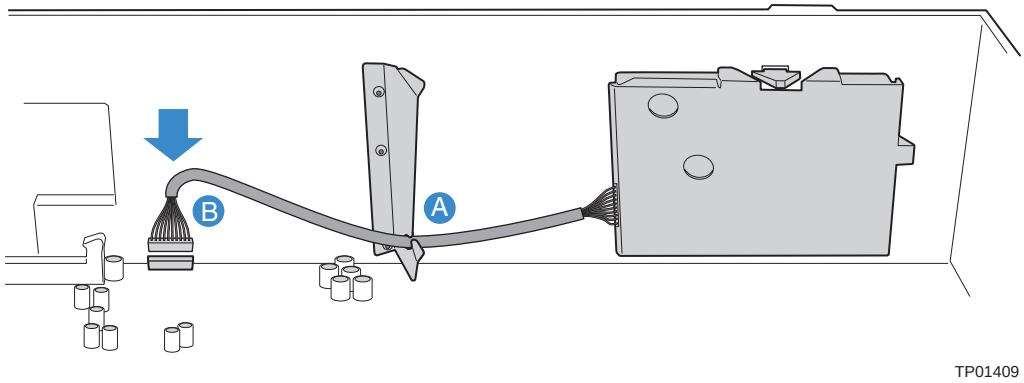

Figure 5. Routing and Connecting the Cable inside the Chassis

Intel® Server Chassis SC5400, Intel® Entry Server Chassis SC5299-E, Intel® Server Platforms SR4850HW4/M and SR6850HW4/M

Connect the cable to the SAS ROMB board as shown below.

***Note:** RAM is required in the DIMM socket.*

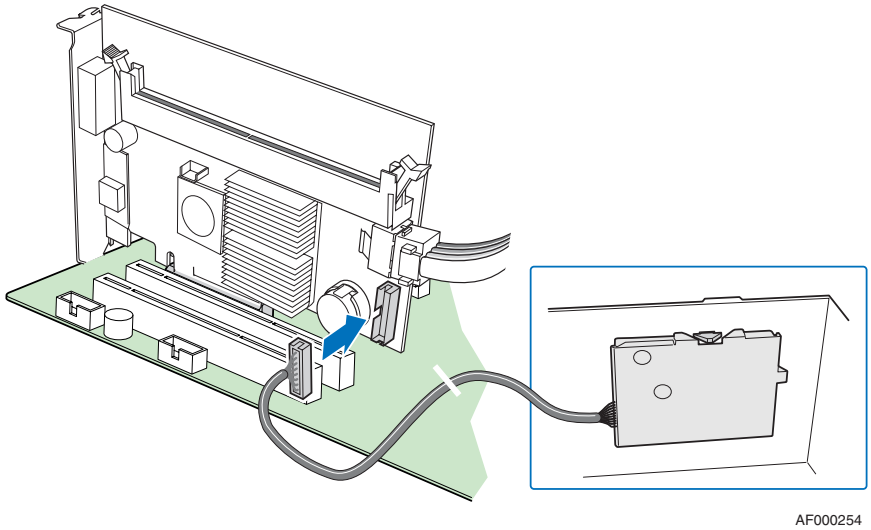

Figure 6. Routing and Connecting the Cable inside the Chassis

Intel® Server Platforms SR1550AL and SR2500AL

Connect the cable to the midplane SAS ROMB board as shown below.

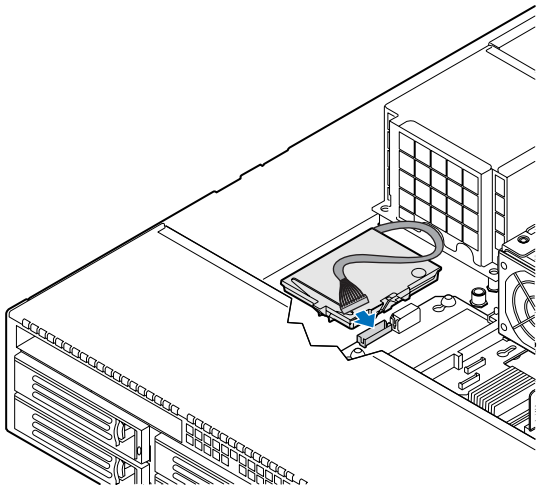

Figure 7. Routing and Connecting the Cable inside the Chassis

Finish Up the Hardware

1. Reinstall any components inside of the server chassis that you needed to remove. See your server board or chassis documentation for instructions.
2. Install the server chassis cover and connect the AC power supply.